

**BEFORE THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

IN RE APPLICATION OF:	§	
Burleigh, et al.	§	Docket No: CON-1028
	§	
	§	
Serial No: 09/724,606	§	Art Unit: 2163
	§	
Filed: November 28, 2000	§	Examiner: H. B. Thai
	§	
Title: Information Management System	§	Confirmation No. 7648

**BRIEF FOR APPELLANTS (37 CFR §41.37)**

**Amended In Response to the Notification of**

**Non-Compliant Brief Mailed on 03/30/2007**

MS Appeal Brief - Patents  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Appellants hereby submit this, their amended brief on appeal from the decision in the Final Office Action (FOA) rendered by the Examiner finally rejecting claims 1- 44, mailed July 3, 2006, in furtherance of the Notice of Appeal filed on 2 October 2006 and in response to the Notification of Non-Compliant Brief Mailed on 03/30/2007.

No fees are believed due at this time, however the Commissioner is authorized to charge any fees required for this communication to Deposit Account **13-0010 (CON-1028)**.

The final page of this brief bears the attorney's signature.

## **TABLE OF CONTENTS**

This Brief contains these items under the following headings, and in the order set forth below (37 CFR §41.37):

<b><i>I. REAL PARTY IN INTEREST</i></b> .....	<b>4</b>
<b><i>II. RELATED APPEALS AND INTERFERENCES</i></b> .....	<b>4</b>
<b><i>III. STATUS OF THE CLAIMS</i></b> .....	<b>4</b>
<b><i>IV. STATUS OF THE AMENDMENTS</i></b> .....	<b>4</b>
<b><i>V. SUMMARY OF THE CLAIMED SUBJECT MATTER</i></b> .....	<b>5</b>
<b><i>VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL</i></b> .....	<b>8</b>
<b><i>VII. ARGUMENTS</i></b> .....	<b>9</b>
A.    Rejections Under 35 U.S.C. § 103(a) of claims 1-7, 15-27 and 41 as obvious over <i>Cwenar</i> in view of <i>Armitage</i> are improper.....	9
B.    Rejections Under 35 U.S.C. § 103(a) of claims 8-10 and 11 as obvious over <i>Cwenar</i> in view of <i>Armitage</i> and further in view of <i>Dembo</i> (US 5148365) are improper.....	27
C.    Rejection Under 35 U.S.C. § 103(a) of claim 12 as obvious over <i>Cwenar</i> in view of <i>Armitage</i> and further in view of <i>O'Shaughnessy</i> (US 6484151) is improper.....	28
D.    Rejections Under 35 U.S.C. § 103 (a) of claims 13-14 as obvious over <i>Cwenar</i> in view of <i>Armitage</i> and further in view of <i>Lu</i> (US 6373489) are improper.....	29

E.	Rejection Under 35 U.S.C. § 103(a) of claim 28-40 as obvious over <i>Bentley</i> (US 6341291) in view of <i>Armitage</i> and further in view of <i>Sperandeo</i> (US 2005/1018139) are improper .....	32
F.	The rejection of claims 42-44 under 35 U.S.C. 103 over <i>Cwenar</i> in view of <i>Armitage</i> and further in view of <i>Myers Jr.</i> (US 6,959,268) is improper.....	38
VIII. PRAYER FOR RELIEF.....		39
<i>APPENDIX A --- Claims on Appeal</i> .....		<i>Separate Document Attached</i>
<i>APPENDIX B --- Evidence</i> .....		<i>None</i>
<i>APPENDIX C --- Related Proceedings</i> .....		<i>None</i>

#### **I. REAL PARTY IN INTEREST**

The real party in interest in this appeal is ConocoPhillips Company having a place of business at Highway 16 and 123, Bartlesville, OK 74004.

#### **II. RELATED APPEALS AND INTERFERENCES**

Appellants, their legal representative, and their assignee are unaware of any other appeals or interferences which will directly affect or would be directly affected by or have a bearing on the Board's decision in this pending appeal.

#### **III. STATUS OF THE CLAIMS**

The claims appealed are claims 1-44, which were finally rejected in an Office Action on 3 July 2006, and are reproduced in Appendix A.

#### **IV. STATUS OF AMENDMENTS**

There are no pending claim amendments.

## **V. SUMMARY OF THE CLAIMED SUBJECT MATTER**

### **Claim 1**

The invention of claim 1 is directed towards an information management system (Field of the Invention (Page 1, lines 5-11); Figures 3, 4, 5, & 7 and elsewhere). The system includes a data repository (30) storing related hydrocarbon-producing portfolio data ((Field of the Invention (Page 1, lines 5-11); Page 8, lines 15-18; Page 16, line 15 through Page 17, line 2) tied to a key parameter field (Figures 3, 4, & 5; Page 9, lines 17-19; Page 14, lines 19-23; and elsewhere). The system further includes at least one application server (32) providing a plurality of different applications (34) (Page 18, line through Page 21, line 20) to a plurality of users (36) (Figures 3-5; Page 9, lines 19-21; Page 17, lines 13-21). At least one of the plurality of different applications (34) (Page 26, line 12 through Page 27, line 14) generates at least some related hydrocarbon-producing portfolio data (Page 6, lines 17-19) having the key parameter field (Page 14, lines 19-23), wherein the data repository (30) can be updated with the related hydrocarbon-producing portfolio data generated by each of the plurality of different applications (34) (Figures 7 & 8A; Page 9, lines 22-23; Page 14, lines 3-6 and 19-23; and elsewhere). The at least one application server (32) being operatively connected to the data repository (30) (Page 9, lines 21-22) to serve the related hydrocarbon-producing portfolio data from the data repository (30) when one of the plurality of different applications (34) use and generate the related hydrocarbon-producing portfolio data having the key parameter field, the management system further updating data relating to a property in a real time environment based on input from multiple users (36) using

different programs for different tasks (Page 9, lines21-23; Page 14, lines 3-6; Page 15, line 22 through Page 16, line 1; Page 29, kine 22 through Page 33, line 9; and elsewhere)

#### Claims 15 and 21

An important aspect independent system claim 15 and method claim 21 is the updating of data in real time by multiple users ( Page 15, line 20 through Page 16, line 1; Page 17, lines 13-23; and elsewhere).

#### Claim 28

Independent method claim 28 includes a method of managing a hydrocarbon-producing portfolio in which team members comprising a geoscientist (70) who initiates the portfolio data and at least one of: a landman (72), a reservoir engineer (74), a regulatory compliance administrator (76), a right-of-way administrator (80), a drilling engineer (78), a completion engineer (82), a finance analyst (84), a field operator (86), a sales and marketing representative (88), and a portfolio manager (90); automatically update corresponding hydrocarbon-producing portfolio data used by any other one of the applications based on the hydrocarbon-producing portfolio data generated by using at least one of the applications (Figure 10; Page 9, line 22 through page 10, line 1; Page 14, lines 3-6; Page 17, lines 13-18; Page 29, line 22 through Page 33, line 9; Page 36, lines 10-20; Page 38, lines 1-8; and elsewhere).

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

The issues on appeal are:

1. Whether claims 1-7, 15-27 and 41 are obvious under 35 U.S.C. § 103 over *Cwenar* (US 5893079) in view of *Armitage* (US 5475589);
2. Whether claims 8-10 and 11 are obvious under 35 U.S.C. § 103 over *Cwenar* (US 5893079) in view of *Armitage* and further in view of *Dembo* (US 51483650);
3. Whether claim 12 is obvious under 35 U.S.C. § 103 over *Cwenar* in view of *Armitage* and further in view of *O'Shaughnessy* (US 6484151);
4. Whether claims 13-14 are obvious under 35 U.S.C. § 103 over *Cwenar* in view of *Armitage* and further in view of *Lu* (US 6373489);
5. Whether claims 28-40 are obvious under 35 U.S.C. § 103 over *Bentley* (US 6341291) in view of *Armitage* and further in view of *Sperandeo* (US20050108139); and
6. Whether claim 42-44 are obvious under 35 U.S.C. § 103 over *Cwenar* in view of *Armitage* and further in view of *Myers* (US 6959268).



## VII. ARGUMENTS

The Examiner's rejection of the instant Applicant's claims should be rescinded or remanded by the Board for further consideration as the Examiner's rejections are founded upon inapplicable prior art and misconstrued and misapplied legal standards for the interpretation of claims during the examination.

### **A. Rejections Under 35 U.S.C. § 103(a) of claims 1-7, 15-27 and 41 as obvious over *Cwenar* in view of *Armitage* are improper.**

Putting the language statutory of 35 U.S.C. § 103(a) into practice, MPEP 2142 states three basic criteria which must be met to establish a *prima facie* case of obviousness. There must be 1) some suggestion or motivation to combine the references teachings; 2) a reasonable expectation of success; and 3) a teaching or suggestion of all the claim limitations. The burden for presenting a *prima facie* case of obviousness requires rests with the Examiner to prove all three criteria have been met. See MPEP 2142.

**1. The Examiner does not satisfy the burden of proof by showing the combination of *Cwenar* and *Armitage* discloses all the elements of independent claims 1, 15 and 21 and their respective dependent claims.**

The Examiner admits that *Cwenar* does not disclose the element in claims 1, 15 and 21 that the data pertains to related hydrocarbon-producing portfolio data. See FOA **p. 4 lines 9 -10**. Other elements are not found in *Cwenar*, as explained below. In addition, the Examiner is incorrect in asserting that *Armitage* generates portfolio data, in that the data in *Armitage* has no key parameter field to distinguish it as one in the portfolio or collection of hydrocarbon-producing prospects.

**a. Neither *Cwenar* or *Armitage* teach or suggest updating the database in real-time.**

As the Examiner has noted, *Cwenar* teaches many of the elements of independent claim 1. However, applicant disagrees with the Examiner's assertion that the teaching of *Cwenar* includes "the management system further updating data relating to a property in real time environment based on input from multiple users using different programs for different tasks."

In the FOA, the Examiner has cited the Abstract, Summary, **col. 2 lines 41-56, col. 4 lines 4-29, col. 5 lines 57-60 and col. 6 lines 36-44** teaching real time updating of the database. Applicant respectfully disagrees with this assertion, as discussed below.

There is no use of the term "real-time" in the **Abstract**. The remaining portions of *Cwenar* cited by the Examiner have nothing to do with "real-time" updating of a database as discussed below.

**Column 2 lines 41-56**, cited by the Examiner, teaches:

**compliance means** which serves to on a real-time basis **compare** a proposed trade with a group of rules which can be prioritized with respect to legal or business standards **and provide instructions regarding stopping, delaying or proceeding with the proposed trade with appropriate records being kept**. The compliance check may be performed on both the external user interface and the server employing rules stored in the main database. It also may be employed on a delayed time basis, as in batch processing. (Emphasis Added)

There is no teaching or suggestion of updating the database in real-time as specified in claim 1; only compliance with respect to legal and business standards before trading is disclosed. A similar statement about real-time compliance is made at **col. 2, line 66 – col. 3, line 2 of *Cwenar***. **“It is another object of the present invention to provide such a system which permits real-time, rule-based compliance review in order to determine that a proposed transaction will not violate predetermined rules.”**

The next portion cited by the Examiner (**col. 4, lines 4-29**) is also related to real-time checking for compliance, not to real-time updating. See specifically **col. 4 lines 22-29** of the Examiner’s citation, **“The system may be employed to effect trades, to monitor proposed transactions for compliance with laws and other rules and preferences and not only provides for a user friendly real-time system, but also eliminates the need for the user to have appropriate interfaces for the various nonuser outside sources of investment data received from sources.”)** Column 4, lines

**4-21** describes protocol regarding data **requests** by the user from the central database. No updating of the central database is disclosed. Rather, the disclosure states that requested data is placed in random access memory (RAM), processed and then released from RAM upon the user exiting. “Reflection Terminal Emulator emulates a dumb terminal”, **col. 6, lines 62-63**, and that storage of data in the external user interface 2 is “temporal” **col. 9, lines 47-48**.

Next, we note that the Examiner’s citation of **col. 5 lines 57-60** relates to simultaneous access to the database by the users, and **not to real-time updating**.

Lastly, the portion cited by the Examiner (**col. 6 lines 36-44**) **makes no mention or suggestion of real-time updating**. What is disclosed is that:

“The PVCS tool acts as a librarian of source code. More specifically, the PVCS tool permits a team of developers to cooperatively develop applications by supporting the ability for a given developer to “check out” specific code and prevent others from changing the code while it is in use by the developer who originally checked it out. This tool also tracks and reports on all changes to code and assists in building the executable version of an application.”

This deals with **development of code**, not **with updating of a database**.

Additional teaching about real-time **compliance** is found in *Cwenar* at **col. 13 lines 24-27**. (“The system further provides, in preferred forms, the use of relational databases and central data repository, the use of dynamically linked library architecture

with firewalls, rules-based compliance systems and great flexibility in respect of storage and communication of investment information.”) Other references to real-time in *Cwenar* relate to real-time communication. See col. 10 48-51 ( “In this manner, effective real-time communication between the user workstation 126 and the custodian server 107, which may be remotely located, is facilitated”) and col. 10, lines 57-63 (“The interchange architecture not only facilitates near real-time communications to the custody and fund accounting environments housed within the client server 107, but also this provides real-time feedback to traders and portfolio managers who would be employing user workstation 126, which may be a smart terminal as to the status of the trade, e.g., unsent, sent, acknowledged, verified, failed, and settled”),

In short, there is no teaching or suggestion in *Cwenar* of real-time updating of the database. *Armitage* does not teach real-time updating of the database, thus the combination fails the all elements test.

The Examiner further asserts in § 2 of the FOA that updating investment data information including mutual funds, stock and mortgage “*must be updated in real-time environment.*” (citing col.1.3, lines 56-64 of *Cwenar*) (Emphasis Added). Applicant disagrees and submits the Examiner has failed to support this assumption with any evidence. Moreover, the Examiner has ignored the fact that *Cwenar* specifically discloses the external data interface as being programmed as to “the frequency with which and times when it will receive data from these [outside] sources. For example, it may be

programmed to receive data **during the night, during the day, both, or periodically in batch form.**” *Cwenar*, col. 7, lines 37-42. (Emphasis added)

As noted above, in order for a claimed invention to be unpatentable under 35 USC § 103, three requirements must be met. The requirement that the combination of the references must teach or suggest all the elements of the claimed invention is not met as neither *Cwenar* nor *Armitage* teaches the updating of a database in real-time. As such, the combination cannot meet the all elements test. Moreover, the Examiner’s assertion that the data must be updated in real-time is contradicted by express teachings in *Cwenar* that the database in *Cwenar* is a batch job. Accordingly, applicant respectfully submits that claim 1 and claims 2 -14 and 41 that depend upon claim 1 are patentable under 35 U.S.C. § 103 over *Cwenar* in view of *Armitage*.

Applicant notes that **col. 5 lines 51-52** of *Cwenar* teaches that a user has the ability to update the central database (“For example, data may be retrieved from the central database through the server 4, data in the central database may be updated and data may be added to the central database.”) However, there is no teaching or suggestion that the updating is done in real time with access by multiple users.

**b. Neither *Cwenar* or *Armitage* teach or suggest generating hydrocarbon –producing portfolio data tied to a key parameter field.**

The Examiner admits that *Cwenar* does not disclose the element of claims 1, 15 and 21 that the data pertains to related hydrocarbon-producing portfolio data. See FOA, **p. 4 lines 9 - 10**). In addition, the Examiner is incorrect in asserting that *Armitage* generates “related hydrocarbon-producing portfolio data having a key parameter field”

The definition of “portfolio” in the Webster Unabridged Dictionary is quite narrow:

**3** : the securities held by an investor or the commercial paper held by a bank or other financial house <expanded the mort and *olio*>

In the context of the present invention, a broader definition of portfolio may be found from a Google search:

A collection of investments.

A collection of investments, real and/or financial.

A collection of investments all owned by the same individual or organization.

The Webster further defines “collection” as

### **Collection**

**2 a** : something collected; *especially* : an accumulation of objects gathered for study, comparison, or exhibition or as a hobby

“During examination, the USPTO must give claims their broadest reasonable interpretation.” See MPEP § 2111.01(citing *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1369, 70 USPQ.2d 1827(Fed Cir. 2004). With this broader definition in mind, the present invention is an information management system for a collection of real property investments in hydrocarbon-producing properties. “[D]uring patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification.” See *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ.2d 1664, (1667 (Fed. Cir. 2000 and MPEP § 2111 (“the broadest reasonable interpretation of the claims must also be consistent with the interpretation that those skilled in the art would reach.” (citing *In re Cortright*, 165, f.3d 1353, 1359, 49 USPA.2d 1464, 1448 (Fed. Cir. 1999).

*Armitage* does not disclose hydrocarbon-producing **portfolio** data. Nor does the Examiner make such a statement. Rather, the Examiner states that *Armitage* “discloses [a] system for evaluating seismic sequence lithology and propert[ies] with predicting potential hydrocarbon **reservoir** and hydrocarbon data. (col. 4, lines 57-66; col.5, lines 7-14 and col. 7, lines 44-46).” (FOA, p. **4, lines 13-15**), (Emphasis added regarding singular use). Then with sleight of hand, after conjecturing that *Cwenar’s* information management system could be used to manage “any kind of data” (FOA p. 4, lines 18) and 2) states that “one would have been motivated to use this type of system [*Cwenar*] with hydrocarbon-producing portfolio data.” Simply stated, the Examiner does not supply any evidence of hydrocarbon-producing **portfolio** data has been disclosed in *Armitage*. The seismic data translation methodology taught by *Armitage* is also limited in that it



evaluates a single **prospect** at a time. Thus, no hydrocarbon portfolio (collection) data is generated. “It is another object of the present invention to provide...techniques and methods which may be ported to virtually any basin throughout the world. (See **col 7, lines 19-22** of *Armitage*); and “It is another object of the present invention to provide a computerized, data-based, paperless, automated means and method for performing geophysical **prospecting**.” (See **col. 7 lines 27-30** of *Armitage*).

The teaching of *Armitage* is directed towards **a method of prospect evaluation, not portfolio evaluation**. The method of *Armitage*, as disclosed, is expressly applied to a single basin, or a portion thereof. (See the example in **Col. 10, lines 33-35** describing selection a 10 km<sup>2</sup> zone for processing). In summary, the combination of *Cwenar* and *Armitage* does not disclose, teach or suggest generating hydrocarbon-producing portfolio data tied to a key parameter field as specified in the claimed invention.

The Examiner has failed to establish a prima facie case of obviousness with respect to claims 1-27 and 41-44 as *Cwenar* and *Armitage*, when combined, do not teach all the substantive elements of independent claims 1, 15 and 21.

**c. No teaching or suggestion in *Cwenar* or *Armitage* of a data repository including hydrocarbon-producing portfolio data as specified in claim 3.**

Claim 3 specifies "wherein the data repository comprises a plurality of databases to store hydrocarbon-producing portfolio data from a respective one of the plurality of

different applications.” As noted above, the combination of *Cwenar* and *Armitage* does not disclose or suggest a hydrocarbon-producing portfolio.

- d. No teaching or suggestion in *Cwenar* or *Armitage* of using applications selected from a database management application of portfolio management application, and of portfolio forecast application as specified in claim 5**

Claim 5 specifies “the plurality of different applications comprises at least one selected from the group consisting of a database management application, a portfolio management application, and a portfolio forecast application.” The Examiner asserts that there is such a teaching in *Cwenar* at **col. 7 lines 7-20**. Applicant has reviewed aside that portion of *Cwenar* and finds no such teaching. What is disclosed therein is “It is also preferred to employ Oracle DBMS which is a relational database management system that has tools to allow developers to build applications based on a relational model.”. **This relates to development of applications, not to simultaneous use of applications.**

- e. No teaching or suggestion in *Cwenar* or *Armitage* of creating an optimized drilling schedule as specified in claims 16 and 26**

Claim 16 specifies that “the business process model comprises creating an optimized drilling schedule.” A similar element is found in claim 26. The Examiner

alleges that such is taught at **col. 11 lines 48-58** of *Armitage*. What is disclosed in the cited portion is reproduced here:

"Calculate sequence midpoint, top and base in depth and plot a line through these points using VI on the other axis. Preferably, the default vertical axis is depth and the default horizontal axis is VI. This makes a "pseudo-inverted" sonic representation, per sequence, per seed area. Where well control exists within this zone or adjacent distance, using similar scales to those used in conventional well sonic analysis (Note a user default distance of 15 k.m.) and overplot on seismic derived pseudo plot. Define fit in terms of match between wells and seismic using the number of sequences, their thicknesses, VI, and dip direction and amount if known."

**There is no relevance of this to drilling, let alone creating a drilling schedule.**

**f. No teaching or suggestion in *Cwenar* or *Armitage* of creating an optimized drilling schedule as specified in claims 17 and 27**

Claim 17 specifies that "the business process model comprises forecasting hydrocarbon production for a selected drilling schedule." A similar element is found in claim 27. The Examiner alleges that such is taught at col. 11 lines 48-58 of *Armitage*. This is the same portion of *Cwenar* discussed above with respect to claim 16 above.

**There is no relevance of this to forecasting hydrocarbon production for a selected drilling schedule.**

**g. No teaching or suggestion in *Cwenar* or *Armitage* of the users as specified in claims 18 and 28**

Claim 18 specifies “users comprises at least two selected from geoscientists, landmen, reservoir engineers, regulatory compliance administrators, drilling engineers, finance analysts, field operators, sales and marketing representatives, and portfolio managers.” The Examiner alleges that such is taught at **col. 11 lines 48-58** of *Armitage*. This is the same portion of *Cwenar* discussed above with respect to claim 16 above.

**There is no relevance of this to the variety of the users specified in claims 18 and 27.**

**h. No teaching or suggestion in *Cwenar* or *Armitage* of serving the plurality of applications as specified in claim 23**

Claim 23 specifies “ wherein the serving the plurality of applications comprises serving a parent application comprising a plurality of application modules, each of the application modules directed to at least one of the respective users.” The Examiner alleges that this is taught in *Cwenar* at **column 7 lines 57-64**.

It is instructive to review this portion of *Cwenar*:

“One of the advantages of employing a dynamically linked library (DLL) architecture is that firewalls are created between each specific module. The DLL is preferably located at the client workstation (user workstation) within the external user interface 2. The EXE block 40 provides a simple module that creates the parent window of the application and also initiates a login with server means 4, as well as providing an entry point for each business specific DLL.”

**This portion of *Cwenar* appears to be a teaching of a firewall between different**

users and actually teaches away from the invention of claim 23.

- i. **No teaching or suggestion in *Cwenar* or *Armitage* of applying at least one business process model as specified in claim 25**

Claim 25 specifies

“applying at least one business process model to selected ones of the stored hydrocarbon-producing portfolio data to generate modeled hydrocarbon-producing portfolio data; and

automatically updating the modeled hydrocarbon-producing portfolio data when selected ones of the stored hydrocarbon-producing portfolio data are updated by operation of any one of the served applications.”

**As noted above in the discussion of claims 1, 15 and 21, neither *Cwenar* nor *Armitage* is related to a hydrocarbon-producing portfolio.**

2. **The Examiner has not provided reasonable evidence regarding a suggestion to combine or the motivation to combine *Cwenar* with *Armitage***

There is no disclosure, suggestion or even a hint, in either *Cwenar* or *Armitage* that would lead a hypothetical person of ordinary skill in the art to combine these references, regardless of their knowledge of the invention, at the time the invention was made. The Examiner notes that “The test of obviousness is not whether features of secondary reference may be bodily incorporated into primary reference’s structure, nor whether claimed invention is expressly suggested in any one or all of references; rather, test is **what combined teachings of references would have suggest to the**

**person of ordinary skill in art.”** (Office Action December 8, 2005. P. 2, line \_ to p. 3, line 2). Citing *In re Fine*, 833 F.2d 1071 (Fed. Circuit 1988) and *In re Jones* 958 F.2d 347 (Fed. Circuit 1992).

More recent cases have addressed this issue. In order to sustain a rejection under 35 USC§ 103, the prior art must teach all the elements of the claimed invention. In addition, there is a requirement that there should be a teaching or suggestion in the prior art for such a combination.

"The factual inquiry whether to combine references must be thorough and searching." It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. See, e.g., *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56 USPQ2d 1456, 1459 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential component of an obviousness holding'" (quoting *C.R. Bard, Inc., v. M3 Systems, Inc.*, 157 F.3d 1340, 1352, 48 USPQ2d 1225, 1232 (Fed. Cir. 1998)); *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."); *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998) (there must be some motivation, suggestion, or teaching of the desirability of making the specific combination that was made by the applicant); *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988) ("teachings of references can be combined only if there is some suggestion or incentive to do so.") (emphasis in original) (quoting *ACS Hosp. Sys., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984)).

The need for specificity pervades this authority. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references"). *In re Lee*, 61 U.S.P.Q.2d 1430, (Fed. Circuit, 2002).

In the absence of a specific teaching or suggestion to combine the reference, a later court has held that

Even if all its limitations could be found in the total set of elements contained in the prior art references, a claimed invention would not be obvious without a demonstration of the existence of a motivation to combine those references at the time of the invention. See *Ecolochem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1371 (Fed. Cir. 2000). This requirement prevents a court from labeling as obvious in hindsight a solution that was not obvious to one of ordinary skill at the time of the invention. See *id.*

The district court held that "at the time the '575 patent was invented, there was no suggestion, teaching, or motivation to combine Udstad with Wagner." We disagree. CPR relied primarily on two sources pre-dating the application for the

'575 patent to demonstrate the requisite motivation to combine: the "Lund drawing" and the "Prichard disclosure." Although the district court discussed both, the district court's focus seems to have centered on whether either had been disseminated to a sufficiently broad public so as to give either the status of a prior art reference. Yet, the prior-art status of the Prichard disclosure and the Lund drawing is not dispositive. .... [the] motivation to combine need not be found in prior art references, but equally can be found "in the knowledge generally available to one of ordinary skill in the art." (citing) In re Jones, 958 F.2d 347, 351 (Fed. Cir. 1992)

*National Steel Car. Ltd. vs. Canadian Pacific Railway Ltd.*, 69 U.S.P.Q.2D (BNA) 1641, (Fed. Cir. 2004, rehearing denied, rehearing denied en banc).

The case cited in *National Steel*, i.e., *In re Jones*, specifically held that: "Before the PTO may combine the disclosures of two or more prior art references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art....  
... Conspicuously missing from this record is any *evidence*, other than the PTO's speculation (if it be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modifications of the prior art salts necessary to arrive at the claimed 2-(2'-aminoethoxy)ethanol salt." *In re Jones*, 21 U.S.P.Q.2D 1941 (Fed. Circuit, 1992)

*In re Jones* is the same case cited by the Examiner as the basis for the obviousness rejection above and applicant submits that that the examiner has failed to meet the standards set out by the case law recited and is selectively quoting from it to the Examiner's benefit.



We note that the *National Steel Car* 2004 case did not overrule or even discuss the 2002 *Lee* case, and that the basic opinion was that of a court panel: only a rehearing was denied *en banc*.

The issue has been visited recently in a non-precedential opinion:

"The reason, suggestion, or motivation to combine [prior art references] may be found explicitly or implicitly: 1) in the prior art references themselves; 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, 'leading inventors to look to references relating to possible solutions to that problem.' " Ruiz v. A.B. Chance Co., 234 F.3d 654, 665 (Fed. Cir. 2000) (quoting Pro-Mold, 75 F.3d at 1572). "Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references." Demibiczak, 175 F.3d at 999; see also Ruiz, 234 F.3d at 665 (explaining that the temptation to engage in impermissible hindsight is especially strong with seemingly simple mechanical inventions). This is because "combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability--the essence of hindsight." Demibiczak, 175 F.3d at 999. Therefore, we have consistently held that a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings, but some motivation to combine the prior art teachings in the particular manner claimed. See, e.g., In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000) ("Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed." (emphasis added)); In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998) ("In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art

references for combination in the manner claimed." (emphasis added)). *Teleflex Inc. vs. KSR Inc.* (Federal Circuit, 2005) Cert granted.

What the combined teachings would suggest to the ordinary person is a system that could be illegal. It would be illogical for a person to combine a system for the management of mutual fund portfolios with a stand alone seismic data interpretation application, especially in real time. Such a combination, in real time, could present serious issues regarding insider trading. Could the geoscientist who has discovered a good reservoir send a buy order in real time for his employer's stock? If the systems were tied together, in real time, could the mutual fund manager increase the weighting of a fund to include more stock based on the geoscientist's modeling? While such a rhetorical question may appear to be facetious, it brings out the fundamental incompatibility between the systems of *Cwenar* and the claimed invention.

No suggestion or motivation can be found in either *Cwenar* or *Armitage* to combine their teachings. As noted, *supra*, *Cwenar* does not teach or suggest real-time updating of data and teaches away from real-time updating. (*See In re Gurley*, 27 F.3d 551, 553, 31 USPQ.2d 1130, 1132 (Fed Cir. 1994) ("A reference may be said teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.")). Certainly, if a person of ordinary skill in the art was seeking to construct a hydrocarbon portfolio management system with a real time

updating feature, that person would not have set out to following the path set out in *Cwenar*.

In addition, there is no expressed disclosure or suggestion in *Armitage* to use its specific geoscience method as a shared application or combine with other applications and users. As such an inventor trying to solve the problem of managing a database system for integrating user generated data wherein the users have different roles, seismic processing being only one function, would not select any elements from *Armitage* to combine with *Cwenar*. In fact, the one or ordinary skilled in the art would not select any elements from *Armitage* as the elements in *Armitage* are not related to database management.

**B. Rejections Under 35 U.S.C. § 103(a) of claims 8-10 and 11 as obvious over *Cwenar* in view of *Armitage* and further in view of *Dembo* (US 5148365) are improper.**

**a. There is no teaching or suggestion in *Cwenar*, *Armitage* or *Dembo* of a resource optimization program for hydrocarbon producing portfolio.**

Claim 8 specifies "a resources optimization program to use the related hydrocarbon-producing portfolio data retrieved from the data repository to generate an optimized allocation of resources based on at least one selected criterion." As discussed above, neither *Cwenar* nor *Armitage* deals with a hydrocarbon producing portfolio.

The material from *Dembo* cited by the Examiner (Figure 1 and column 1 lines 33-35 and 39-45) deals with allocation of resources, not with a hydrocarbon producing portfolio. Claims 9, 10 and 11 are dependent upon claim 8. Hence at least one of the elements of claims 8-11 is lacking in *Cwenar*, *Armitage* and *Dembo*.

Accordingly, claims 8-11 are patentable over *Cwenar* in view of *Armitage* and further in view of *Dembo*.

C. **Rejection Under 35 U.S.C. § 103(a) of claim 12 as obvious over *Cwenar* in view of *Armitage* and further in view of *O'Shaughnessy* (US 6484151) is improper.**

a. **There is no teaching or suggestion in *Cwenar*, *Armitage* or *O'Shaughnessy* of a notification program for hydrocarbon producing portfolio.**

Claim 12 specifies " a notification system to automatically notify at least one user when related hydrocarbon-producing portfolio data relevant to the at least one user has been updated in the data repository."

As discussed above, neither *Cwenar* nor *Armitage* deals with a hydrocarbon producing portfolio. The material from *O'Shaughnessy* cited by the Examiner deals with an automatic notification for financial portfolio management. Hence at least one of the elements of claim 12 is lacking in *Cwenar*, *Armitage* and *O'Shaughnessy*.

Accordingly, claim 12 is patentable over *Cwenar* in view of *Armitage* and further in view of *O'Shaughnessy*.

**D. Rejections Under 35 U.S.C. § 103 (a) of claims 13-14 as obvious over *Cwenar* in view of *Armitage* and further in view of *Lu* (US 6373489) are improper**

Putting the language statutory of 35 U.S.C. § 103(a) into practice, MPEP 2142 states three basic criteria which must be met to establish a *prima facie* case of obviousness. There must be 1) some suggestion or motivation to combine the references teachings; 2) a reasonable expectation of success; and 3) a teaching or suggestion of all the claim limitations. The burden for presenting a *prima facie* case of obviousness requires rests with the Examiner to prove all three criteria have been met. See MPEP 2142.

**1. The Examiner does not meet the burden of proof by showing the combination of *Cwenar*, *Armitage* and *Lu* discloses all the elements of the subject Claims 13 and 14 which depend from claim 1.**

a. The non-obviousness of Claim 1 in view of *Bentley* and *Armitage* has been fully discussed. *Lu* does not include the teachings or suggestion necessary to render Claim 1 as obvious. *Lu* teaches computer modeling, specifically 3d modeling for use in geoscience. Nothing in *Lu* would be useful to of ordinary skill in the art of preparing or using a an information management system. Since Claim 1 is not obvious in view of *Cwenar*, *Armitage* and *Lu*, it follows then that Claims 13 and 14, being narrower than Claim 1 are also not obvious over the Examiner's references.

b. The *Lu* reference does not, as the Examiner alleges, teach the different functions related to the development and managements of “assets” AND that it would have been obvious to one of ordinary skill in the art to include the claimed features of *Lu* with *Cwenar* and *Armitage* to enhance a management system.

*Lu* is a reference that is related to or deals with 3-d computer modeling in geoscience (*Lu*, Col 1, lines 6-11). The Examiner cites the first paragraph of the background of the invention from *Lu* which reads:

Geologists, geophysicists and petroleum engineers use models, including computerized models, of the earth's crust to plan exploration and production of hydrocarbons and, to a lesser extent, other minerals. As hydrocarbons become more scarce, the accuracy of the computerized models becomes increasingly important to limiting the cost of locating and producing hydrocarbons and the associated cost of hydrocarbon products, such as gasoline and heating oil.

There is nothing in *Lu* generally or cited passage specifically that would suggest to one of ordinary skill in the art that an asset management team (claim 13 of the present application) or a geoscientist, a landman, a reservoir engineer, a regulatory compliance administrator, a drilling engineer, a finance analyst, a field operator, a sales and marketing representative, and a portfolio manager (Claim 14 of the present application) would benefit from the information management system of claim 1.

The computer software in *Lu* is very different from that claimed in Claims 13 and 14. The software in *Lu* is, as stated in *Lu*, useful to Geologists, Geophysicists and Petroleum Engineers because it requires extensive and special training to use 3d

visualizations of geophysical data, such as seismic data, and these are the professionals that typically would be able to use such information.

In marked contrast to *Lu*, the software of the present application, while useful to those same professionals is also useful to, for example, a landman, a regulatory compliance administrator, a drilling engineer, a finance analyst, a field operator, a sales and marketing representative, and a portfolio manager. Complex, scientific graphic representations of subsurface earth formations such as those disclosed in *Lu* and the information management systems of the present application are as different as earth climate modeling software is to estate planning software. Just because one can estimate a time of death to be used in an application, it would not be obvious without undue experimentation to determine the value of a piece of beach front property at the time of death created by increasing sea levels. *Lu* clearly does not teach or suggest that a system or program such as that claimed in Claim 1 of the present application would have a broad usefulness outside of the geophysical scientists such as is claimed in Claims 13 and 14. It follows then that Claim 13 and 14 are not obvious in view of the Examiner's references.



**E. Rejection Under 35 U.S.C. § 103(a) of claim 28-40 as obvious over *Bentley*(US 6341291) in view of *Armitage* and further in view of *Sperandeo* (US 2005/1018139) are improper.**

Putting the language statutory of 35 U.S.C. § 103(a) into practice, MPEP 2142 states three basic criteria which must be met to establish a *prima facie* case of obviousness. There must be 1) some suggestion or motivation to combine the references teachings; 2) a reasonable expectation of success; and 3) a teaching or suggestion of all the claim limitations. The burden for presenting a *prima facie* case of obviousness requires rests with the Examiner to prove all three criteria have been met. See MPEP 2142.

**1. The Examiner does not meet the burden of proof by showing the combination of *Bentley*, *Armitage* and *Sperandeo* discloses all the elements of independent claim 28 and its respective dependents.**

**a. None of the three references cited by the Examiner discloses a hydrocarbon portfolio management system.**

The Examiner asserts that *Bentley* discloses a method for managing a portfolio. The *Bentley* reference is in the field of engineering project management. It is noted that “Specifically, the present invention provides a management tool for tracking and managing multiple simultaneous changes to a project data set in a cohesive, secure, identifiable, and reversible way.” **Col. 1 lines 17-21**

An important essential feature of engineering project management is to maintain compatibility between updates made by individual users of the database.

“Next, the user requests that the set of components which represent the edited version of the temporary design file be updated to reflect any component changes made in the repository since the creation of the original current version of the temporary design file by other users during the user's editing time period. As part of the updating process, resolvable and unresolvable component conflicts are locally detected on a per component basis between the components which represent the edited temporary version of the design file and the latest current version of the components. The components represented by the locally updated and edited temporary version of the design file are allowed to replace the latest current version of the components in the repository **only if no unresolved component conflicts exist between the two versions.**” Col. 2 lines 51-65

This is contrary to the basic tenets of portfolio management which requires the ability to compare individual elements of the portfolio. The engineering project is a single entity in which multiple users **may not** make changes independently of one another. In a portfolio, changes to one element do not affect the valuation of another element. ExxonMobil may revalue its assets in the Gulf of Mexico if, for example, new geophysical technology increases the recoverable reserves of a reservoir: this revaluation may be done independently of the value of a property in California.

In summary, applicant respectfully submits that *Bentley* is not relevant prior art and that a person skilled in the art of portfolio management would not look to the field of engineering project management for methods to use for hydrocarbon portfolio management.

As discussed above, *Armitage* teaches prospect evaluation, not portfolio management. The teachings of *Sperandeo* are relied on by the Examiner solely for teaching of a step of initiation.

Claim 28 specifies:

" having a plurality of asset team members each using an application related to the function of the respective asset team member to generate hydrocarbon-producing portfolio data relevant thereto; the asset team members comprising a geoscientist who initiates the portfolio data and at least one of, a landman, a reservoir engineer, a regulatory compliance administrator, a right-of-way administrator, a drilling engineer, a completion engineer, a finance analyst, a field operator, a sales and marketing representative, and a portfolio manager;"

There is no teaching or suggestion and any of the three references of a hydrocarbon portfolio generated by team members including a geoscientist who initiates the portfolio data and at least one of, a landman, a reservoir engineer, a regulatory compliance administrator, a right-of-way administrator, a drilling engineer, a completion engineer, a finance analyst, a field operator, a sales and marketing representative, and a portfolio manager.

**b. There is no teaching or suggestion in *Bentley*, *Armitage* or *Sperandeo* of an optimized drilling schedule for a hydrocarbon-producing portfolio as specified in claim 31, 32 and 33**

Claim 31 specifies "applying at least one business process model comprises determining an optimized drilling schedule." The Examiner alleges that this is disclosed

in *Armitage*. The lack of such a teaching in *Armitage* has been discussed above with reference to claims 16 and 26.

With respect to claim 32, what is specified is that the optimized drilling schedule is determined based on at least one selected from (i) product price forecasts, and (ii) production predictions. The Examiner asserts that this is taught in *Armitage* at col. 6 lines 62-67. What is stated therein is “It is an object of the present invention to provide a computerized methodology for automating hydrocarbon prospecting and exploration using prevalent computer technology and the like whereby those skilled in the art may better understand the lithology of subsurface formations and, consequently, reliably predict the deposits contained therein.”

This is a prediction of reserves in place, not of production rates that may be obtained. A word search of *Armitage* shows no occurrence of the word “price” or variants thereof in the document.

With respect to claim 33, what is specified is “developing assets to achieve the greatest net cash flow in a selected amount of time for a selected amount of capital.” The Examiner alleges that this is disclosed in *Armitage* at **col. 4 lines 1-14**. What is actually disclosed is “Thus, to effectively transfer such innovative and complex technology to industry requires computerization involving not only iterative interpretation of data collected via seismic testing and the like, but also requires integration with geophysical databases to properly validate and enhance knowledge for predicting suitable locations

for hydrocarbon exploration and development. For such a contribution to the prior art to be an effective tool, it should provide a route to improved accuracy, allowing performance of the extra work necessary without extra costs and via use of existing industrial resource bases, overhead, staff, space, relevant material, and use of or integration with available industrial computer systems.”

Applicant fails to see the connection between the disclosed material, the Examiner’s allegation and the claimed optimized drilling schedule.

**c. There is no teaching or suggestion in *Bentley, Armitage* or *Sperandeo* of forecasting hydrocarbon production as specified in claim 34.**

Claim 34 specifies “applying at least one business process model comprises forecasting hydrocarbon production.” The Examiner alleges that this is disclosed in *Armitage* at **col. 2 lines 51-67**. As noted above in the discussion with regard to claim 32, that portion of *Armitage* deals with total reserves in-place and not with hydrocarbon production.

**d. There is no teaching or suggestion in *Bentley, Armitage* or *Sperandeo* of determining drilling costs associated with at least one well as specified in claim 36.**

Claim 36 specifies “applying at least one business process model comprises determining drilling costs associated with at least one prospectively drilled well”. The Examiner alleges that this is disclosed in *Armitage* at **col. 3 lines 1-7**. What is actually

disclosed is "Improved interpretation of investment risk factors by those skilled in the art is precursed upon separate definition and analysis of these risk factors. The responsibility for analysis of such risk factors must be accepted by those who prepare and endorse evidence related to documentary requests for upstream expenditure. When a sufficient proportion of all relevant geological and geophysical factors can be adequately and separately defined, not only will risk be better understood and ultimately reduced, but also effective automation and computerization of the underlying complexities will be facilitated."

Again, applicant fails to see the relevance of the cited material of the claimed subject matter which deals with drilling costs.

**F. The rejection of claims 42-44 under 35 U.S.C. 103 over *Cwenar* in view of *Armitage* and further in view of *Myers Jr.* (US 6,959,268) is improper.**

Claims 42 specifies “only one of the multiple users is allowed to access data relating to the property at a time.”

Claim 43 specifies “only one of the multiple users is allowed to access data relating to the property at a time.”

Claim 44 is similar to claim 42.

Applicant notes that *Myers* is in the field of engineering project management and is not related prior art for the same reason that *Bentley* is not related prior art. See discussion above with respect to claims 28-40.

### **VIII. PRAYER FOR RELIEF**

It is respectfully submitted that the rejections of the claims have been overcome and/or avoided by the arguments presented above. It is further respectfully requested that the Board reverse the final rejections of the examiner and the application be advanced to issue. The examiner and/or the Board are encouraged to call the Appellants' attorney at the number below for any reason that may advance prosecution of the case.

Respectfully submitted,

26 April, 2007

\_\_\_\_\_  
/Gene L. Tyler/  
Gene L. Tyler  
Registration No. 35,395  
Madan, Mossman & Sriram, P.C.  
2603 Augusta, Suite 700  
Houston, Texas 77057  
Telephone: (713) 266-1130  
Facsimile: (713) 266-8510  
Attorney for Applicants



APPENDIX A CLAIMS ON APPEAL, APPLICATION SERIAL NO. 09/724,606

1. (Rejected) An information management system, comprising:

a data repository storing related hydrocarbon-producing portfolio data tied to a key parameter field; and

at least one application server providing a plurality of different applications to a plurality of users, the at least one application server operatively coupled to the data repository, at least one of the plurality of different applications generating at least some related hydrocarbon-producing portfolio data having the key parameter field, wherein the data repository can be updated with the related hydrocarbon-producing portfolio data generated by each of the plurality of different applications having the key parameter field, the at least one application server being operatively connected to the data repository to serve the related hydrocarbon-producing portfolio data from the data repository when ones of the plurality of different applications use and generate the related hydrocarbon-producing portfolio data having the key parameter field, the management system further updating data relating to a property in a real time environment based on input from multiple users using different programs for different tasks.

2. (Rejected) The system as defined in claim 1, wherein the data repository can store all hydrocarbon-producing portfolio data generated by each of the plurality of different applications.

3. (Rejected) The system as defined in claim 1 wherein the data repository comprises a plurality of databases to store hydrocarbon-producing portfolio data from a respective one of the plurality of different applications.

4. (Rejected) The system as defined in claim 1, wherein the plurality of different applications comprises at least two selected from the group consisting of a geoscience application, a petroleum land management application, a drilling engineering application, a finance application, a reservoir engineering application, a sales and marketing application, and a field operations application.

5. (Rejected) The system as defined in claim 1, wherein the plurality of different applications comprises at least one selected from the group consisting of a database management application, a portfolio management application, and a portfolio forecast application.

6. (Rejected) The system as defined in claim 5, wherein the database management application comprises a front-end user interface operatively coupled to the data repository and generating at least some hydrocarbon-producing portfolio data having the key parameter field when ones of the plurality of users enter hydrocarbon-producing portfolio data into the front-end user interface.

7. (Rejected) The system as defined in claim 6, wherein the front-end user interface comprises a plurality of different application modules each directed to specific ones of the plurality of users.

8. (Rejected) The system as defined in claim 5, wherein the portfolio management application comprises a resources optimization program to use the related hydrocarbon-producing portfolio data retrieved from the data repository to generate an optimized allocation of resources based on at least one selected criterion.

9. (Rejected) The system as defined in claim 8, wherein the selected criterion comprises at least one selected from the group consisting of developing most profitable assets first, achieving a selected net cash flow, achieving a selected earnings, achieving a selected level of production, satisfying obligations on time, and developing assets to achieve the greatest net cash flow in a selected amount of time for a selected amount of capital.

10. (Rejected) The system as defined in claim 8, wherein at least one application server automatically updates selected ones of the related hydrocarbon-producing portfolio data when the resource optimization program generates optimized allocation of resources data.

11. (Rejected) The system as defined in claim 5, wherein the portfolio forecast application forecasts future performance of assets based on the related hydrocarbon-producing portfolio data.

12. (Rejected) The system as defined in claim 1, further comprising a notification system to automatically notify at least one user when related hydrocarbon-producing portfolio data relevant to the at least one user has been updated in the data repository.

13. (Rejected) The system as defined in claim 1, wherein the plurality of users comprise members of an asset development team having different functions related to the development and management of assets in the portfolio, each member responsible for providing particular related data corresponding thereto.

14. (Rejected) The system as defined in claim 13, wherein the members of the asset development team comprise at least two selected from a geoscientist, a landman, a reservoir engineer, a regulatory compliance administrator, a drilling engineer, a finance analyst, a field operator, a sales and marketing representative, and a portfolio manager.

15. (Rejected) A management system for a hydrocarbon-producing portfolio, comprising:

at least one server providing a plurality of applications to respective users, at least one of the applications generating hydrocarbon-producing portfolio data corresponding to the respective user, at least some of the hydrocarbon-producing portfolio data generated by at least one of the applications having a key parameter field therein;

a database management system operatively coupled to the at least one server and storing at least some of the hydrocarbon-producing portfolio data generated by at least one of the plurality of applications and update any of the stored hydrocarbon-producing

portfolio data having the key parameter field when ones of the plurality of applications modify any of the stored hydrocarbon-producing portfolio data having the key parameter field; the at least one server to serve the updated hydrocarbon-producing portfolio data to any other ones of the plurality of applications when the other ones of the plurality of applications retrieves the updated hydrocarbon-producing portfolio data having the key parameter field, the management system further updating data on a property in a real time environment based on input from multiple users using different programs for different tasks; and

at least one business process model application to apply a business process model to selected ones of the stored hydrocarbon-producing portfolio data to generate modeled hydrocarbon-producing portfolio data having the key parameter field, the at least one business process model application to automatically update the modeled hydrocarbon-producing portfolio data when any ones of the selected ones of the stored hydrocarbon-producing portfolio data are updated by operation of any of the other applications.

16. (Rejected) The system according to claim 15, wherein the business process model comprises creating an optimized drilling schedule.

17. (Rejected) The system according to claim 15, wherein the business process model comprises forecasting hydrocarbon production for a selected drilling schedule.

18. (Rejected) The system according to claim 15, wherein the respective users comprises at least two selected from geoscientists, landmen, reservoir engineers, regulatory

compliance administrators, drilling engineers, finance analysts, field operators, sales and marketing representatives, and portfolio managers.

19. (Rejected) The system according to claim 15, wherein the plurality of applications comprises a part of the database management system.

20. (Rejected) The system according to claim 19, wherein the plurality of applications comprises application modules embedded in the database management system.

21. (Rejected) A method for managing information, comprising:

serving a plurality of applications to respective users, each of the plurality of applications generating hydrocarbon-producing portfolio data corresponding thereto, at least some of the hydrocarbon-producing portfolio data generated having a key parameter field therein;

storing the hydrocarbon-producing portfolio data generated by at least one of the applications;

updating any of the hydrocarbon-producing portfolio data having the key parameter field when one of the plurality of applications is used to modify any of the stored hydrocarbon-producing portfolio data having the key parameter field;

updating data relating to a prospect in a real time environment on the basis of input from multiple users using different programs for different tasks, and

serving the updated hydrocarbon-producing portfolio data to any other ones of the plurality applications when said other ones of the plurality of applications retrieves from storage the hydrocarbon-producing portfolio data having the key parameter field.

22. (Rejected) The method as defined in claim 21, wherein the plurality of applications comprises a plurality of separate applications each directed to at least one of the respective users.

23. (Rejected) The method as defined in claim 21, wherein the serving the plurality of applications comprises serving a parent application comprising a plurality of application modules, each of the application modules directed to at least one of the respective users.

24. (Rejected) The method as defined in claim 21, wherein the plurality of applications comprises at least one selected from a geoscience application, a petroleum land management application, a drilling engineering application, a finance application, and a reservoir engineering application, a production forecast application, and a portfolio optimization application.

25. (Rejected) The method as defined in claim 21, further comprising:

applying at least one business process model to selected ones of the stored hydrocarbon-producing portfolio data to generate modeled hydrocarbon-producing portfolio data; and

automatically updating the modeled hydrocarbon-producing portfolio data when selected ones of the stored hydrocarbon-producing portfolio data are updated by operation of any one of the served applications.

26. (Rejected) The system according to claim 25, wherein applying the business process model comprises creating an optimized drilling schedule based on a selected criterion.

27. (Rejected) The system according to claim 25, wherein applying the business process model comprises forecasting hydrocarbon production for a selected drilling schedule.

28. (Rejected) A method for managing a hydrocarbon-producing portfolio, comprising:

having a plurality of asset team members each using an application related to the function of the respective asset team member to generate hydrocarbon-producing portfolio data relevant thereto; the asset team members comprising a geoscientist who initiates the portfolio data and at least one of, a landman, a reservoir engineer, a regulatory compliance administrator, a right-of-way administrator, a drilling engineer, a completion engineer, a finance analyst, a field operator, a sales and marketing representative, and a portfolio manager; and

automatically updating corresponding hydrocarbon-producing portfolio data used by any other one of the applications based on the hydrocarbon-producing portfolio data generated by using at least one of the applications.



29. (Rejected) The method of claim 28, wherein the applications comprise at least two selected from a seismic interpretation application, a production forecasting application, a petroleum land management application, a regulatory compliance application, a drilling engineering application, and a portfolio optimization application.

30. (Rejected) The method of claim 28, further comprising:

applying at least one business process model to select ones of the corresponding hydrocarbon-producing portfolio data to generate modeled hydrocarbon-producing portfolio data.

31. (Rejected) The method according to claim 30, wherein the applying at least one business process model comprises determining an optimized drilling schedule.

32. (Rejected) The method according to claim 31, wherein the optimized drilling schedule is determined based on at least one selected from product price forecasts and production predictions.

33. (Rejected) The method according to claim 32, wherein the optimized drilling schedule is determined based on a selected criterion comprising at least one selected from developing most profitable assets first, achieving a selected net cash flow, achieving a selected earnings, achieving a selected level of production, satisfying obligations on time, and developing assets to achieve the greatest net cash flow in a selected amount of time for a selected amount of capital.

34. (Rejected) The method according to claim 30, wherein the applying at least one business process model comprises forecasting hydrocarbon production.

35. (Rejected) The method according to claim 30, wherein the applying at least one business process model comprises automatically populating regulatory forms based on corresponding hydrocarbon-producing portfolio data.

36. (Rejected) The method according to claim 30, wherein the applying at least one business process model comprises determining drilling costs associated with at least one prospectively drilled well.

37. (Rejected) The method according to claim 28, wherein the hydrocarbon-producing portfolio comprises existing and prospective well locations, petroleum land management information related to the existing and an prospective well locations, and estimated hydrocarbon reserves in reservoirs penetrated by the existing and prospective wells.

38. (Rejected) The method according to claim 28, further comprising notifying at least one of the asset team members that corresponding hydrocarbon-producing portfolio data used by the one of the applications used by the at least one asset team member have been updated by operation of the other one of the applications used by at least one other asset team member.

39. (Rejected) The method according to claim 28, further comprising limiting any one of the asset team members from updating selected ones of the corresponding hydrocarbon-producing portfolio data outside of the function of the any one of the asset team members.

40. (Rejected) The method according to claim 28, further comprising restricting selected ones of the asset team members from updating selected corresponding hydrocarbon-producing portfolio data prior to other selected ones of the asset team members generating other selected corresponding hydrocarbon-producing portfolio data.

41. (Rejected) The system as defined in claim 1 wherein the application server further provides data generated by one of the plurality of different applications as input to another of the plurality of different applications.

42. (Rejected) The system as defined in claim 1 wherein only one of the multiple users is allowed to access data relating to the property at a time.

43. (Rejected) The management system as defined in claim 15 wherein only one of the multiple users is allowed to access data relating to the property at a time.

44. (Rejected) The method as defined in claim 21 wherein the updating data relating to a prospect further comprises limiting access to one of the multiple users at a time.

APPENDIX B  
ADDITIONAL EVIDENCE ON APPEAL  
APPLICATION SERIAL NO. 09/724,606

-- NONE--

APPENDIX C  
RELATED PROCEEDINGS  
APPLICATION SERIAL NO. 09/724,606

--NONE--